

PO Facility Risk Assessment

Name(s) of Risk Team Members: R. Gill, K. Klaus, K. Kusche, R. Liegel, S. Shapiro, M. Zarcone	Point Value → Parameter ↓	1	2	3	4	5
Area/Facility Description Title: General electrical issues	Occupancy or Use	≤once/year	≤once/month	≤once/week	≤once/shift	>once/shift
Area/Facility # (if applicable): PO-FRA-003						
Area/Facility Description: Facility-wide electrical	Severity	First Aid Only	Medical Treatment	Lost Time	Partial Disability	Death or Permanent Disability
Date: May 19, 2004 Rev. #: 0	Likelihood	Extremely Unlikely	Unlikely	Possible	Probable	Multiple
Reason for Revision (if applicable):				Comments:		

Physical Item or Activity	Hazard(s)	Control(s)	Risk with Controls in Place				Control(s) Added to Reduce Risk	Risk with Additional Controls in Place				% Risk Reduction
			Occupancy A	Severity B	Likelihood C	Risk* AxBxC		Occupancy A	Severity B	Likelihood C	Risk* AxBxC	
Electrical Equipment & Power Supplies BNL Class A & B <250 VAC; <1000Vdc	Shock or electrocution	Training; Installations comply with applicable codes & standards; procedures; Tier I Inspections; distribution drawings; LO/TO; working hot permits; qualified electricians; cabinet interlocks; postings, guarding; work planning; GFCI; grounding standards; emergency procedures; PPE such as safety glasses, hardhats and electrically insulated gloves.	5	2	2	20						

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			Risk with Controls in Place					Risk with Additional Controls in Place				
Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Electrical Equipment & Power Supplies BNL Class C <600 VAC; <6000 VDC Electrical Equipment & Power Supplies BNL Class C <600 VAC; <6000 VDC	Shock or electrocution	Training; Installations comply with applicable codes & standards procedures; Tier I Inspections, distribution drawings; LO/TO; working hot permits; qualified electricians; cabinet interlocks; postings; guarding; work planning; GFCI; grounding standards; emergency procedures. PPE such as safety glasses, hardhats and electrically insulated gloves.	4	3	3	36						
	Arc blast; burn	Procedures, training, PPE such as fire retardant uniforms and face shields.	4	3	2	24						
Electrical Equipment & Power Supplies BNL Class D >600 VAC; >6000 VDC Electrical Equipment & Power Supplies BNL Class D >600 VAC; >6000 VDC	Shock or electrocution	Tier I inspections; installations comply with applicable codes; procedures; distribution drawings; LO/TO, working hot permits; safety watch for working hot; qualified electricians; cabinet interlocks; postings; locked areas; guarding; work planning; GFCI; grounding equipment; emergency procedures	2	4	2	16						
	Arc blast; burn	Procedures, training, PPE Such as flame retardant uniforms, Experiment Safety Reviews, work permits.	2	4	2	16						
Extension Cords; Temporary Wiring And Power Strips	Shock or electrocution	All equipment is listed; Tier 1 inspections; installations comply with applicable codes; procedures; training; GFCI; grounding standards	5	2	3	30						

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Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Batteries/UPS	Shock or electrocution	All equipment is listed; Tier 1 inspections; installations comply with applicable codes; procedures; training; distribution drawings; LO/TO; working hot permits; qualified electricians; cabinet interlocks; postings; locked areas; guarding; work planning; grounding standards; emergency procedures	4	3	2	24						
	Chemical splash	Proper selection of PPE such as safety glasses, goggles, face shield; procedures; training, eyewash	4	2	2	16						
	Explosion	Proper selection of PPE such as safety glasses and gloves; procedures; training, explosion proof wiring.	4	3	2	24						
General Wiring; Cable Trays; Buss Work and Wall Sockets	Shock or electrocution	All equipment is listed; Tier 1 inspections; installations comply with applicable codes; procedures; training; distribution drawings; LO/TO; working hot permits; qualified electricians; cabinet interlocks; postings; locked areas; guarding; work planning; GFCI; grounding standards	5	2	3	30						
Electrical Disconnects, Switches, Circuit breakers	Arc blast; burn	Proper selection of PPE such as flame retardant clothing, face shields and electrically insulated gloves. Procedures, training.	2	2	2	8						

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Physical Item or Activity	Hazard(s)	Control(s)	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	Control(s) Added to Reduce Risk	Occupancy A	Severity B	Likelihood C	Risk* AxBxC	% Risk Reduction
Electrical Disconnects, Switches, Circuit breakers (cont'd)	Shock or electrocution	All equipment is listed; Tier 1 inspections; installations comply with applicable codes; procedures; training; distribution drawings; LO/TO; working hot permits; qualified electricians; cabinet interlocks; postings; locked areas; guarding; work planning; GFCI; grounding standards; emergency procedures; two-person rule for working hot above 480v	3	1	3	9						
Appliances And Computers	Shock or electrocution	All equipment is listed; Tier 1 inspections; installations comply with applicable codes; procedures; training; LO/TO; qualified electricians; guarding; GFCI	5	1	3	15						
Vacuum Pumps	Shock or electrocution	All equipment is listed; installations comply with applicable codes; procedures; training; LO/TO; qualified electricians and Ref. A/C workers; postings; work planning;	4	1	2	8						
Electrical Powered Hand Tools	Shock or electrocution	All equipment is listed; Tier 1 inspections; procedures; training; work planning; GFCI; grounding standards; double insulation on power tools	5	1	2	10						
Further Description of Controls Added to Reduce Risk:												
*Risk:	0 to 20 Negligible	21 to 40 Acceptable	41 to 60 Moderate				61 to 80 Substantial				81 or greater Intolerable	